DOCUMENT RESUME

ED 096 378 UD 014 547

AUTHOR Leslau, Abraham
TITLE Sociodemographic Factors and Racial School Segregation. CDE Working Paper No. 74-20.
INSTITUTION Wisconsin Univ., Madison. Center for Demography and Ecology.
REPORT NO CDE-WP-74-20
PUB DATE Jul 74
NOTE 46p.

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS Census Figures; Community Characteristics; Community Involvement; *Demography; Elementary Schools; *National Surveys; Racial Segregation; *Residential Patterns; *School Segregation; *Social Factors; Social Influences; Socioeconomic Status; Student Enrollment

ABSTRACT

The purpose of this research is to investigate the relationship between the community's sociodemographic factors and the results of its effort to desegregate or integrate its school system. Two overall hypotheses are tested: (1) there is a positive correlation between each of three demographic variables--racial residential segregation, black school enrollment, and size of the community--and the rate of school segregation; and (2) residents of small communities, in comparison with those of large communities, are involved more in the issue of school integration and their attitudes are taken more into account in the decision-making concerns of this issue. In this study only elementary schools are considered. The population of the study consists of every small community of the northern states. From census data for 1970 there were 249 places that met the study's conditions, but 19 were eliminated from the analysis. Because of technical problems and lack of data, the main discussion is based on the data available for 128 places. Two sources are used in this study: (1) "Directory of Public Elementary and Secondary Schools in Selected Districts, Enrollment and Staff by Racial/Ethnic Groups, Fall, 1970" (U.S. Department of Health, Education, and Welfare, 1972) and (2) 1970 census data. The former is used for computing the indexes of school segregation and enrollment measures, the latter for measuring the other independent variables. (Author/JM)

ED 096378

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SOCIODEMOGRAPHIC FACTORS AND RACIAL SCHOOL SEGREGATION

Abraham Leslau

CDE Working Paper 74-20

July 1974

UD Ca454

Center For Demography And Ecology
University of Wisconsin-Madison

ACKNOWLEDGEMENTS

I would like to thank Professor Karl E. Taeuber for his support and advice. Mette Sørensen has been very helpful in her suggestions and in making some of the material available. Thanks also go to Lyn Kimbrough for her nice work in correcting and typing the manuscript.

INTRODUCTION

This issue of racial isolation in the public schools has been discussed in many studies during the last decade. The most comprehensive works dealing with this subject are Equality of Educational Opportunity (Coleman et al., 1966) and Racial Isolation in the Public Schools (U. S. Commission on Civil Rights, 1967). The first concentrates more on the consequences of racial isolation on black children. It demonstrates that the racial composition of schools appears to be a distinct element within the factors which affect the outcome of black students' education. Its findings show that racial isolation in the schools tends to lower students' achievement, to restrict their aspirations, and to impair their sense of being able to affect their own destiny. Moreover, racial isolation not only inflicts educational damage upon black students when they are in school, it reinforces the very attitude and behavior that maintain and intensify racial isolation as well.

On the other hand, the Commission on Civil Rights, considering these crucial consequences, emphasizes in its report the cause of racial isolation in order to suggest some of the possible solutions to the problem. According to its findings (1967:199-204) racial isolation in the Northern cities stems from a three-dimensional process. (1) Housing policies and practices of both private industry and government lead to racial, social, and economic separation between city and suburb. Negroes concentrate mainly in the central city, while increasing number of whites emigrate to the suburb. Within

cities, as within metropolitan areas, there is a high degree of racial residential segregation for the same reasons. (2) School districts in metropolitan areas generally do not encompass both central city and suburban residential areas. Thus, central city and suburban school districts enclose separate racial, economic, and social groups. (3) The authorities of the school systems, in determining such discretionary matters as the location and size of schools and the boundaries of attendance areas, intensify racial concentrations. Although there have been only a few instances to date where deliberate segregation has been determined by the courts to exist in the North, it is widely acknowledged that decisions by school officials have had the effect of reinforcing racial separation of students.

There is another factor which contributes to establishing racial isolation which is not directly associated with the process described above. Private schools in some places absorb a large segment of the white school population, while the non-whites attend public school almost exclusively.

Summarizing the Commission's findings we can argue that <u>de facto</u> school segregation in a specific school system is a function of racial concentration in housing and certain "institutional arrangements," such as small neighborhood schools, currently dominating the system (Rose, 1968). These institutional arrangements enable school authorities to create a segregated school system and permit "neutral decisions" to lead to reinforcement of racial segregation of students. Hence, the desegregated school system is a consequence of the following possibilities. (1) There is not a racial residential segregation within the jurisdiction of the school district. (2) There is racial residential

segregation, but (for whatever reason) the decisions of school officials about location and size of schools and the boundaries of attendance areas are such that racial concentration in schools is avoided. (3) Social pressure and/or conviction lead the school officials and the community to get rid of the "institutional arrangement" in order to implement desegregation. These possibilities are not mere speculation. Many communities throughout the United States have already coped with the problem of school segregation. Our purpose is to investigate the relationship between the community's sociodemographic factors and the results of its effort to desegregate or integrate its school system.

Prior Research of the Research Problem.

In the last decade only a few studies have been carried out on the relationships between community characteristics and school desegregation. Hill & Feeley (1968) and Edwards & Wirt (1967) describe the events beginning with the first demand for school integration in some communities, going through all the debates until some decision is reached. In these studies, some attempt is made to discuss the cases systematically, but they emphasize mostly the "decision making" aspect and use other community characteristics only for background description.

Crain (1968) approaches the problem in a more systematic way. In the introduction he states: "Since we did not feel that the literature provided us with a set of hypotheses that we could test, we were forced to fall back on a case study technique" (1968:5). But his case study approach includes more than mere description and may better be called a comparative study.

The study investigates eight cities in the North and seven in the South. These cities were selected through a modified random sampling

scheme. The following discussion will concentrate on the Northern cities only. His first important conclusion is that

> "In general, the school board is able to muster community support for its position, regardless of whether its stand is pro-or-anti integration. . . .In seven of the eight cities, the school board, rather than the superintendent or the mayor, made the major decisions on the school integration issue. . . .The school board makes its decisions about integration in the absence of any guiding frame of reference or general educational philosophy. . . .This tension and ambiguity mean that the board's decision is heavily influenced by the subjective attitudes of the board members toward the civil rights issue in general" (1968:136).

These conclusions led Crain to focus his research on the school boards of different cities. According to his findings three factors explain the "acquiescence" of the school board to the school desegregation demand: (1) the liberalism of the attitudes of individual board members, (2) the cohesiveness of the board, and (3) whether it is an elected or appointed body. At this point the crucial question is what determines the difference in attitudes, cohesiveness and type of recruitment between the several school boards. Crain gives a two-step answer. The first step deals with the members' personal character and the structure of the school board. "Liberalism" of the school board depends on the socioeconomic status of its members. The higher their status, the more liberal will be the school board. "Cohesiveness" depends on the homogeneity of the school board. Highly cohesive boards tend to be made up entirely of political professionals or entirely of non-political members. In the second step he presents findings which indicate that these factors are associated with three community variables: (1) the presence of elites in the city, (2) the presence of strong political parties, and (3) the presence of a low status population. Crain concludes in arguing that these three community

characteristics are all relevant to the way the school board is recruited and the way the school integration issue is handled.

In order to reach some conclusions which would be relevant to our investigation, it is worthwhile to discuss briefly the effects of two of the variables mentioned in the Crain study: the socioeconomic status of the community and the socioeconomic composition of the school board. At first Crain (1968:157) had assumed that high status persons were less prejudiced, so that school boards in high status cities should be most acquiescent. But the data did not support this assumption. Moreover he found a weak correlation in the opposite direction: in high status cities the school boards are leas acquiescent. A partial explanation is given by the fact that each school board makes its decision independently from the citizens' opinions. Therefore, only the socioeconomic composition of the school board, not of the community, is a relevant factor affecting the way the school integration issue is handled. But even if we assume that there is a positive relationship between the socioeconomic composition of the city and the school board, the former has also a negative effect on the possibility to reach a decision for desegregating the school system. The data reveals that there is less consensus within the school board of high status cities. In these cities the school boards are more heterogeneous and therefore less acquiescent and more prone to conflict. Thus, in predicting the correlation between the socioeconomic status of the city and the acquiescence of the school board, one should be very cautious. Considering the "liberal" attitudes of the high status people, a positive correlation may be expected. But this will be true only where the citizens have any direct influence

on the school board or where the school board itself is composed of high status persons. On the other hand, socioeconomic composition affects the power structure of the city, which in turn determines the recruitment rules of the school board. High status cities recruit their school board members from various social groups. This decreases cohesiveness on the board and makes it less acquiescent to the racial integration demand.

Crain's main purpose is to investigate the process of making a single decision as it is made in different cities. Since he is not interested in rates of school integration per se, he uses "acquiescence" as his dependent variable, and defines it "as the extent to which the school board acted to bring the civil rights movement closer to its goals" (Crain, 1968:142). This specific definition leads to the possibility that cities with highly integrated school systems will be ranked low on the "acquiescence" scale. For example, San Francisco, with 70% of Negroes in integrated schools, is ranked on the "acquiescence" scale below Pittsburgh, Baltimore and St. Louis which have 48%, 17% and 14% of Negroes in integrated schools. It is not surprising that other studies with entirely different approaches come out with findings that are in contradiction with his.

Dye (1968) argues that

> ". . . superimposing a policy of geographical attendance zoning on a pattern of residential segregation ensures public school segregation. It is plainly the agents of the state and its political subdivisions who select school sites, define attendance areas, and assign Negro pupils and teachers to school which are racially isolated. The maintenance of segregated schools by states and school districts is certainly a non-decision and therefore public policy. . . . There are no constitutional bars, technological obstacles, or physical reasons why the public schools of the nation's cities cannot be desegregated" (1968:145-6).

And actually, some states and cities have already made the decision to reduce racial imbalance in schools. Therefore, there are marked differences among cities in the degree of school segregation.

Dye's main purpose is to discover the social, economic, and political conditions associated with variations in the extent of segregation. His population study includes 34 Northern and 21 Southern large cities (for the data sources, see Dye:164). The dependent variable in this study is public school segregation, which is defined operationally as "per cent of total Negro elementary pupils in schools which are 90-100% Negro" (Dye:142). The independent variables and the findings for the Northern cities are presented in Tables A and B.

Table A:* ENVIRONMENTAL VARIABLES AND PUBLIC SCHOOL SEGREGATION IN NORTHERN CITIES.

ENVIRONMENTAL VARIABLES	SEGREGATION MEASURES Negro Pupils	
	Simple	Partial
Negro Pupils as % of Total	.76*	.60*
Status Characteristics of City Population		
Adult Education	-.46*	-.34*
White Collar Employment	-.56*	-.44*
Family Income	-.04	-.25
Status Characteristics of Negro Population		
Adult Education	-.42*	-.20
White Collar Employment	-.14	.19
Family Income	-.05	.13
Ethnicity	-.31*	-.21
Size of City	.49*	.37*
Age of City	.54*	.32*
Private School Enrollment	.25	.17

Note: Partial coefficients show the influence of each environmental variable while controlling for all other environmental variables including Negro pupil percentages; an asterisk indicates a significant relationship.

Table B:* POLITICAL VARIABLES AND PUBLIC SCHOOL SEGREGATION IN NORTHERN CITIES.

POLITICAL VARIABLES	SEGREGATION MEASURES Negro Pupils	
	Simple	Partial
Form of City Government	.27	.17
Partisan v. Non-Partisan Election	-.03	-.05
Elected v. Appointed School Boards	.12	.34
Ward v. At-Large School Boards	.25	.25
Voter Participation	-.26	-.08
Democratic Party Voting	.55	.09

Note: Partial coefficients show the influence of each political variable while controlling for all environmental variables including Negro pupil percentages; an asterisk indicates a significant relationship.

*Source: Dye, 1968:158-160.

These tables show that: (1) Negro pupil percentages are the single most important determinant of pupil segregation, (2) among the urban environmental variables only status characteristics (educational and occupational but not income levels of the population), size and age of the city, ethnicity and private school enrollment are significantly correlated with the extent of racial segregation; increase in adult education and white collar employment are associated with decrease in Negro pupil segregation; and larger and older cities tend to have more pupil segregation than smaller and newer ones, and (3) political system variables are not as important as environmental variables in shaping school segregation patterns. Few of those variables correlated significantly with Negro pupil segregation, and even these are either very weak or "washed out" when the effects of environmental variables are controlled.

Two conclusions can be drawn from the previous discussion. First,

the research on the social, economic and political factors affecting racial isolation in the public schools is still in an embryonic stage, and most of the suggested relationships between the variables are still problematical. Therefore our approach to the subject will be an exploratory one, which means that we will avoid drawing a general theoretical framework. Instead we will try only to uncover relationships between the variables.

Second, since most of the Negro pupils live in the large cities, it is obvious why most investigators choose large cities as their unit of analysis. But this approach leads to some disadvantages. The studies mentioned above indicate that the mechanism which relates people's attitudes on racial isolation to school integration policy is not entirely clear. We assume that this ambiguity stems from absence of direct channels of communication between the citizens and their official institutions, and the complexity of the political structure in large cities. One way to overcome this difficulty is by investigating the subject matter of school segregation in smaller communities. We do not argue that in every small community all relations between the authority and the citizen are direct ones. But since their political structure is less complicated, there is a high probability that the people's attitudes are known and will be taken into consideration in policy making.

VARIABLES AND HYPOTHESES

Instead of presenting a general theoretical framework, we will explain why it is reasonable to assume that the following variables may be related to the dependent variable (a measure of the level of school segregation). In some cases we will also predict the directions

of these relationships, and in others we will explain why any prediction is debatable.

The Dependent Variable: School Segregation.

The definition of this variable depends on what goals are thought to be achieved by school desegregation. If the goal is mostly to improve the educational performance of the black students, a situation is sought where the school's student body will be interracial and predominantly white (Coleman, et al., 1966; U. S. Commission, 1967). The variable which measures the extent to which this goal is not achieved will be called the concentration index.

Two other approaches emphasize the "symbolic" meaning of school segregation. These views are interpreted in two different ways. The minimalists will consider the elimination of all-black schools as their main purpose, which means increasing the percentage of white students attending these schools. But since very few small communities have all-black schools, it is irrelevant for our study to present this view with a special variable. The complete desegregationists seek to disperse the black and white students by enrolling them in each school in the school district in order to prevent any racial concentration. The variable appropriate to this approach will be called the segregation index.

The complete desegregation approach may be politically less difficult to implement than the "minimalist" or deconcentration approaches. In some case studies it was found that plans which propose placing black students in each school in the district were facing less opposition from white parents than were plans for more limited pupil shifts. There are two different explanations for this

phenomenon. One emphasizes the feeling that every parent participates in solving the problem. The other argues that this way of solving the problem reduces the possibility that white students will attend school with a high percentage of blacks.

The Independent Variables.

We can divide our independent variables into two groups. The possible relationships between one group of variables and the dependent variables may be explained by a "demographic" rationale and the other by a "social" one. This differentiation is not exclusive because the "demographic variables" may provide a social explanation too. But since these variables furnish a more direct explanation when they are used with a demographic rationale, it will be more efficient to handle them separately. The demographic variables are as follows:

1. Racial residential segregation.

Racial residential segregation is conducive to maintaining and increasing school segregation. In order to decrease the extent of school segregation in a school district with a high degree of residential segregation, the school board must eliminate the dominating "institutional arrangement." Therefore, any policy of non-decision making leads to reinforcing racial separation of students. We are aware of only one study (Farley and Taeuber, 1974) which investigated the relationship between residential and school segregation; its findings showed a strong relationship between them.

2. Black enrollment.

The Civil Rights Commission (U. S. Commission, 1967:6) argues that the pattern of school segregation does not vary according to the proportion of Negroes enrolled in the school system. Dye (1968:151)

presents findings indicating a strong and independent positive relationship between Negro enrollment and school segregation. His explanation is that large Negro enrollments generate strong demands and place important constraints on school systems in racial matters. These contradicting conclusions refer only to the existing situation in the large cities. For small cities even the Civil Rights Commission states that the proportion of the school population which is Negro is an important factor in determining the effectiveness of school desegregation techniques (U. S. Commission, 1967:140).

3. Size of the community.

Although there is some evidence that size of the community is positively associated with racial school segregation, the mechanisms by which the first affects the latter are not completely clear. At least two reasons can be brought to explain this relationship. First, places with the same extent of residential segregation will differ in the size of their racial concentration areas according to their population size. In small places, these areas may be so small that normal-size school attendance areas will not segregate the minority completely. Second, it is much easier for small places to apply some of the desegregation techniques successfully. In fact, the implementation of successful school desegregation depends more on the number of pupils enrolled in the school district than on the population size of the place. Therefore, although these two variables are probably highly intercorrelated, it might be useful to include them both in the preliminary analysis.

Hypothesis 1.

There is a positive correlation between each of these three

demographic variables and the rate of school segregation.

The social variables are as follows:

1. Socioeconomic status of the white population.

Several studies indicate that different socioeconomic groups or classes behave differently in the matter of racial relations. The common assumption is that high status persons are less prejudiced and may be more accepting of integration than low status ones. Dye's findings appear to conform to this assumption. In Northern cities, greater adult education and white collar employment are associated with lesser Negro pupil segregation. These relationships appear in both simple and partial coefficients, suggesting that these variables independently affect school segregation (Dye, 1968:155). Explaining these findings, he argues that higher status populations may be more accepting of integration than lower status populations. The high status populations are said to be more "public regarding," which involves both concern for "the public interest" and the "welfare of the community."

Roger and Swanson (1965) studied responses of two areas to a similar integration plan. These areas differed markedly in their response. The one that had a predominantly "lower middle class" population opposed the plan, while the other which had a predominantly "upper middle class" population, mostly favored it. In their explanation why there would be differences in the degree of acceptance of school integration between these two groups, they emphasize the social-psychological aspect involved in this issue.

> "Actually in Smithwood (one of the two areas), and probably in other areas outside the central city, the lower middle class has experienced a particular kind of mobility that affects their response to a compulsory integration

> plan. . . .They felt that by 'moving up' to such a semi-suburban area they could escape the hardships of central city slum conditions and enjoy such middle class amenities as home ownership, uncrowded and 'good' schools, and safer living conditions" (Roger and Swanson, 1965:111).

This, together with their concern about their ambiguous status, and the fear that if Negroes will move into their schools and neighborhoods there will no longer be a status group below them, may explain the unfavorable response of the suburban lower middle class population. (For a more detailed discussion of the relationship between status anxiety and racial relations, see Blalock, 1967).

2. Residential segregation by socioeconomic status.

The basic assumption is that low status populations should oppose school integration plans more than do high status populations. But social contact between these groups may change the attitude of the low status one. According to Riecken and Homans (1954) physical closeness between persons means that there is a high probability of interaction between them. Therefore, it seems reasonable to argue that the less residential segregation between socioeconomic groups, the more the social contact between them. Less residential segregation may have two consequences. It will prevent an easy organization of the residents who oppose school integration and it will increase the influence of the high status residents on their low status neighbors. Lipset and others (1954), in summarizing the conditions that may account for variations in voting within the lower-income group, state:

> "Perhaps the most important of these conditions is the presence or absence of good communications among people who have a common problem. Close personal contacts among such people help each to become aware of the community of interests and develop collective action, including political action, to solve the common problem. . . .On the other hand, people who are exposed mainly to personal contacts, and formal communications from groups with different economic interests than their own, are much less likely to develop class consciousness and to support parties favoring social change" (1954:1140).

If these conclusions about voting behavior are appropriate to our subject, it is reasonable to predict that there is a relationship between socioeconomic residential segregation and the attitude of low status population on school integration, and hence an indirect effect on school racial segregation.

3. Socioeconomic status of the black population.

There are several reasons why there should be a relationship between socioeconomic status of a community's black population and school segregation. First of all, the well educated middle-class black population should know how to make their demands felt on the issue of school integration. Secondly, they should be more concerned about their children's education than are the low-class black population. The third reason concerns the relationship between the black's socioeconomic status and the attitudes the white imputes to him. Hyman (1969) presents several studies which indicate that these attitudes are modified according to the black's class. The higher his class, the less will be the prejudice, the social distance and the discriminatory behavior of the white.

4. Stability of the community's population.

A community with a high percentage of mobile residents should include a high proportion of population which is apathetic to community affairs. Therefore, a school integration plan may face less opposition in such a community. But on the other hand, apathetic population is less interested in solving the social problems, or more generally, in the welfare of the community. It may take less initiative to raise public issues and oppose social reforms which involve a higher tax payment. Because the relationship between this variable and school segregation may take either direction, it will be mere

speculation to predict the correct one.

Since we do not know the exact mechanism that might relate stability to school segregation, it seems reasonable to deal separately with the stability of the two racial groups. Stability or instability of these groups might have opposing consequences in relation to school segregation.

5. Private school enrollment.

Private and parochial school enrollment comprised about one-sixth of the total school enrollment in the United States in 1960 and there are some places where private school enrollment is a much higher percentage of the total school population. This variable may affect school segregation by raising the proportion of Negro enrollment in the school system. But since the variable of Negro enrollment includes this effect (as an intermediate variable), it is fruitless to use private school enrollment separately. This variable may have another effect. Parents who send their children to private schools or who plan to send them in order to prevent their children from attending integrated school, may be less involved in the issue of school segregation. Since most of these parents are part of the sector that does not favor integration, their apathy should weaken the opposition to school desegregation. Similarly the availability of an extensive private system may lessen the concern of other parents with what happens in the public schools.

Hypothesis 2.

To summarize, the key hypothesis regarding the impact of the social variables is that residents of small communities, in comparison with those of large communities, are involved more in the issue of

school integration and their attitudes are taken more into account in the decision-making concerns of this issue. Since there is an association between some characteristics of the community and the attitudes of its residents, the following relationships are expected to exist within our universe of smaller communities:

I. The higher the socioeconomic status of the white population, the less the school segregation in the community.

II. In communities with a certain proportion of high status population, the less the residential segregation by socioeconomic status within the white group, the less the school segregation in the community.

III. The higher the socioeconomic status of the black population, the less the school segregation in the community.

IV. There is a relationship between the stability of the community's population and the extent of school segregation.

V. In communities with the same proportion of black students, the higher the proportion of children attending private schools, the less the school segregation in the community.

MEASUREMENT AND METHODS

Operational Definition of the Dependent Variable.

In this study only elementary schools are considered. A school is considered elementary if it contains mainly grades one to six.

1. Concentration Index.

The percentage of blacks, from the total black enrollment in the school district, attending elementary schools with more than 50 percent blacks (when only black and white students are taken into

consideration).

This definition makes sense only when the percentage of blacks in the school district is less than 50 percent. For school districts with a higher percentage, a random allocation of students always will cause 100 percent racial concentration. For these communities we will use the following definition: the percentage of black pupils attending elementary schools with a percentage of blacks that is higher than that of the total school district.

2. Segregation Index.

This variable will be measured by the index of dissimilarity = $(1/2\sum\left|\frac{bi}{B} - \frac{wi}{W}\right|)$ 100, when i is an elementary school which contains bi black and wi white pupils in a school district with B black and W white elementary students. The higher the index, the more the segregation.

The index of dissimilarity is independent of the percentage of black students enrolled in the school district and it takes into consideration the dispersion of black students over all the schools in the district. In studies of residential and socioeconomic segregation these attributes have led to great use of the index of dissimilarity in preference to measures such as the concentration index. But because we deal with the relationship between people's attitudes and school segregation, we must take into consideration other criteria too.

To illustrate the difference between the two measures of school segregation, suppose that there are two school districts, each containing five schools as follows:

	School District			
School	A		B	
	Blacks	Whites	Blacks	Whites
1	900	100	450	550
2	100	900	550	450
3	0	1000	0	1000
4	0	1000	0	1000
5	0	1000	0	1000
Total	1000	4000	1000	4000

The appropriate indices are:

	School District	
	A	B
Concentration index	90	55
Segregation (dissimilarity) index	87.5	75.0

According to the standards of avoiding predominantly black schools, District B is much more desegregated than A, but the index of dissimilarity, which is more sensitive to the total dispersion of black students, shows a more modest difference between the two districts.

Operational Definitions of the Independent Variables.

1. Racial residential segregation.

This variable will be measured by the index of dissimilarity = $(1/2\sum\left|\frac{bi}{B} - \frac{wi}{W}\right|)$ 100, when i is a census tract which contains bi blacks and wi whites of a community with B blacks and W whites.

2. Black enrollment.

The percentage of black students out of the black and white students enrolled in the school district.

3. Size of the place.

Number of inhabitants.

4. Size of the school district.

Number of pupils enrolled in the school district's elementary schools.

5. Socioeconomic status of the white population.

Three different indices will be used to measure this variable:

I. The percentage of whites, 25 years and over, who completed high school.

II. The percentage of white males, 14 years and over, working in white-collar occupations.

III. The percentage of white families with annual incomes (in 1969) of $10,000 or more.

6. Residential segregation by socioeconomic status (white population only).

This variable will be measured by the index of dissimilarity = $(1/2 \sum \left| \frac{li}{L} - \frac{hi}{H} \right|)$ 100, when i is a census tract which contains li low status persons (separately for income, education and occupation) and hi high status persons of a community with L low status persons and H high status persons.

7. Socioeconomic status of the black population.

Three different indices will be used to measure this variable.

I. The percentage of blacks, 25 years and over, who completed high school.

II. The percentage of black males, 14 years and over, working in white-collar occupations.

III. The percentage of black families with annual incomes (in 1969) of $10,000 or more.

. Stability of the community's population.

I. The percentage of white residents 5 years old and over in 1970 who lived in the same house in 1965. The higher the percentage, the higher the stability.

II. The percentage of black residents 5 years old and over in 1970 who lived in the same house in 1965.

This is a very crude measurement of stability, in two ways. First, we are concerned about the commitment of the people to the community and the fact that people are new in the place does not necessarily indicate that they are less involved in the community activities. Second, we are taking into consideration only people who have lived in the same house during the five years between 1965 and 1970, but many other people might move from one house to another within the same community.

9. Private school enrollment.

The percentage of whites 3-34 years old enrolled in elementary parochial and private schools out of all whites 3-34 years old enrolled in elementary schools.

The Universe of Study.

The population of the study consists of every small community of the Northern states. Because the Supreme Court decision on May 17, 1954, applied initially and directly to Southern school districts, the process of desegregation differs in many instances from the one in the North. Hence we exclude Southern communities. To date there has been little court-mandated school desegregation in Northern communities and we assume that measures of school segregation are related primarily to demographic and social factors.

The Northern states are Arizona, California, Colorado, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin and Wyoming. A small community is defined as an "incorporated place"

with at least 25,000 but not more than 200,000 inhabitants. But since it is irrelevant to study racial school segregation in communities which have very few black inhabitants, all the places with fewer than 1,000 black residents have been eliminated from this study.

From census data for 1970 there were 249 places that met these conditions, but 19 were eliminated from the analysis because of one of the following reasons: (1) the place was included in another school district; (2) it had more than one school district within its boundaries; (3) its school district included less than five schools; or (4) fewer than 100 black students were enrolled in its school district.

Because of technical problems and lack of data, it was impossible to compute the racial and socioeconomic residential segregation indices for 90 and 42 places respectively. Of these places, 30 were not included in the present analysis because both indices could not be computed. Sixty communities were eliminated from that portion of the analysis that takes into consideration the effects of racial residential segregation, and twelve were eliminated from the analysis of socio-economic residential segregation. Because of this undesired situation, our main discussion is based on the data available for 128 places. At the end of this paper an attempt will be made to estimate how well these 128 places represent the entire universe.

The Data.

Two sources are used in this study, Directory of Public Elementary and Secondary Schools in Selected Districts, Enrollment and Staff by Racial/Ethnic Groups, Fall, 1970 (U. S. Department of Health, Education, and Welfare, 1972), and 1970 census data. The former is used for

computing the indices of school segregation and enrollment measures, the latter for measuring the other independent variables. Using these two sources in the same analysis should be justified. The main problem is that many school districts are composed of more than one community (or place). School district boundaries are not always identical with community ones (municipal boundaries) which are used in census data. This leads to a situation where our dependent and independent variables sometimes refer to different populations.

There are several techniques to handle this problem. The most appropriate one is to use census and school district maps in order to compare their boundaries. But unfortunately, this technique is problematical because of the difficulty of getting the maps of the school districts and the heavy work it demands. Instead, we will try to find out to what degree these two units of analysis are the same by comparing the number of children attending elementary schools according to the census data (TP), with the number of elementary students enrolled in the school district (TSD). The ratio TSD/TP has been computed for each place and the findings are presented in Table 1.

Table 1. DISTRIBUTION OF THE PLACES ACCORDING TO THEIR RATIO TSD/TP.

Ratio	Less than 1.00	1.00 to 1.10	1.11 to 1.20	1.21 to 1.30	1.31 to 1.40	1.41 to 1.50	1.51 to 2.00	More than 2.00	Total
No. of School Districts	152	19	10	10	2	3	3	1	200

The comparison cannot be done in the most accurate way. The students in many school districts cannot be divided into those attending grades 1 to 8 and 9 to 12, while the census uses only these categories. As

a consequence it is difficult to get numbers for the same groups of students. In many cases TSD utilizes the number of students attending grades 1 to 6 or 7; hence, it is smaller than TP which is the count of all the students up through the 8th grade. Taking into consideration that we have already eliminated from our population all the places with more than one school district, we can argue that a ratio of less than 1.0 stems mainly from the inconsistency mentioned above. Therefore, it is reasonable to assume that for all these places, census and school district data refer to the same population. For other places and especially for these with a ratio greater than 1.2, the only justification for including them in the analysis is that, except for the one community with a ratio above 2, the census data cover the majority of the school district population.

Another problem that should be dealt with concerns the measures of socioeconomic residential segregation. The basic unit used in this measure is the census tract. Some tracts contain population from two or more different places. A measure that takes into consideration these tracts is based partially on a population that lives outside the community that we are concerned about. In order to prevent serious biases, we have taken into account in our computation only tracts for which most of the population are living in the place we are interested in. In order to trace how many places are affected by this problem, we compute a ratio between the actual population of the place and the population that was taken into account in calculating the index.

Table 2 reveals that 50 places have a ratio that is greater than 1.04 or smaller than .95. For these places the index we use may be biased.

Table 2. DISTRIBUTION OF THE PLACES ACCORDING TO THEIR RATIO BETWEEN ACTUAL AND 'COMPUTED' POPULATION.

Ratio	.95-1.04	.90-.94 or 1.05-1.09	.85-89 or 1.10-1.14	Less than .85 More than 1.14	Total
No. of Places	150	16	9	25	200

Characteristics of the Communities and the School Districts.

The 200 places included in this study have a total 1970 population of 14,925,177 inhabitants of which 12,904,237 are whites and 1,869,820 are blacks. The distributions of the places according to some socio-economic variables are shown in Table 3.

Table 3. DISTRIBUTION OF THE PLACES ACCORDING TO SOCIOECONOMIC CHARACTERISTICS.

	Percent										
Socioeconomic Characteristics	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	Total
White	Number of Places										
Percentage Completed High School	0	0	3	14	51	76	32	17	6	1	200
Percentage Males Working in White Collar Occupations	0	1	13	74	66	26	10	9	1	0	200
Percentage Families with Annual Income $10,000 or more	0	0	1	15	73	72	26	11	2	0	200
Black											
Percentage Completed High School	0	4	42	77	43	19	6	7	2	0	200
Percentage Males Working in White Collar Occupations	20	90	58	17	9	3	2	1	0	0	200
Percentage Families with Annual Income $10,000 or more	3	17	71	73	22	7	5	1	1	0	200

There is wide variation among the places in these variables for both the white and the black population.

Among the whites, the highest correlation among the socioeconomic characteristics is between education and occupation while the correlations between these two variables and income is smaller but still greater than 0.5.

Table 4. ZERO-ORDER CORRELATIONS BETWEEN THE SOCIOECONOMIC VARIABLES.

Socioeconomic Variables	1	2	3	4	5	6
1. Percentage whites completed high school	-					
2. Percentage white males working in white-collar occupations	.84	-				
3. Percentage white families with annual income of $10,000 or more	.56	.60	-			
4. Percentage blacks completed high school	.52	.40	.25			
5. Percentage black males working in white-collar occupations	.57	.57	.26	.72	-	
6. Percentage black families with annual income of $10,000 or more	.25	.26	.61	.51	.44	-

The same pattern of relationships between these variables exist among the black population. The correlations between the two populations show the same tendencies but on a lower level. Between the whites' education and occupation and the blacks' education and occupation, the correlations are close to 0.5. The same degree of relationship exists between the income of the whites and blacks, while the correlations are much smaller between the whites' education and occupation and blacks' income, and whites' income and blacks' education and occupation. To summarize, the highest correlations are between education and occupation within each racial group, the lowest are between

education and occupation and income of the different groups, and in between are all the other combinations.

The total number of students enrolled in the 200 school districts is 1,860,422 of which 383,545 are blacks and 1,332,060 are whites. The school districts are diverse in size. They range from a very small one with 2,133 students and 5 schools to several with more than 20,000 students and more than 50 schools. There are differences between districts in their average school size (see Table 5), but the correlation between district size and average school size is only .33.

Table 5. DISTRIBUTION OF SCHOOL DISTRICTS ACCORDING TO NUMBER OF SCHOOLS, AVERAGE SCHOOL SIZE AND PERCENTAGE OF BLACK STUDENTS.

	Number of Schools											
	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-60	Total
Number of School Districts	9	43	40	32	25	15	18	6	3	5	4	200

	Average School Size (Number of Students)							
	201-300	301-400	401-500	501-600	601-700	701-800	801-900	Total
Number of School Districts	3	51	63	57	15	7	4	200

	Percentage of Black Students											
	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-60	Total
Number of School Districts	36	28	39	24	17	14	5	4	6	5	22	200

Our population includes a considerable number of districts that have less than 5% or more than 50% black students. This fact required special consideration for the operational definition of racial concentration. School districts with more than 50% blacks will reach the

highest level of racial concentration, according to the operational definition, even when the blacks are distributed into schools randomly. On the other hand, a district with a total number of black students less than half the size of its largest school may concentrate all the blacks in one school and still have zero concentration index. We try to solve the first problem, at least partially, by using different operational definitions for districts with less and more than 50% black. Moreover, in addition to the regular analysis we will analyze separately the districts that have less than 50% blacks and compare the findings with the ones for the whole population.

DATA ANALYSIS

Method.

Two indexes are used to measure the extent of school segregation for each community. Racial concentration (R.C.) is measured mainly by the percentage of blacks attending schools with more than 50% blacks. Racial segregation (R.S.) is measured by the index of dissimilarity. These two variables will be considered separately, and then a comparison between them will be presented.

The analysis is based mainly on comparing standardized regression coefficients of the different variables in a linear regression model. At this point, we assume that the linear model fits our data. Multicollinearity may lead to the "partially fallacy" (Gordon, 1968) even if the correlations between the independent variables are not entirely high. The zero-order correlations shown in Table 6 indicate that this is a very real problem in our data.

Some of these high correlations were expected and are easy to handle. We suggested several alternatives for measuring socioeconomic

status (S.E.S.) and socioeconomic residential segregation in a community. It is not surprising that alternative measures of the same concept are highly intercorrelated, but by including in the regression equation only one variable from each group we can solve the problem. But not all the highly intercorrelated variables can be assumed as indicators of the same phenomenon. For example, the correlation between the percentage of whites and of blacks working in white-collar occupations is .56. Although Gordon warns us that even this magnitude of correlation, together with other conditions, may lead to the "partially fallacy," he does not suggest any specific remedy besides his demand for a better understanding of the investigated phenomenon. Whenever we include two highly intercorrelated variables in the regression model, several alternatives will be investigated before suggesting a preferred interpretation.

Social and Demographic Factors and Racial Segregation in Schools.

The zero-order correlations between racial segregation in schools (R.S.) and the independent variables (Table 6) give us some hints about the relationships between these variables. We will start with a basic regression model that includes the demographic variables, and by comparing alternative models the other variables will be added.

Table 7 shows the standardized regression coefficients for selected combinations of three demographic variables and residential segregation for 128 places (from now on our discussion is based on this population). From this table it is obvious that black enrollment (percentage of blacks in the school district) has almost no independent relationship with R.S. The size of the place and the size of the school district are highly intercorrelated; the former coefficient is

Table 6. ZERO-ORDER CORRELATIONS BETWEEN DEMOGRAPHIC, SOCIOECONOMIC STATUS, RESIDENTIAL AND SCHOOL SEGREGATION VARIABLES (200 PLACES).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Size of the place	-													
2. Size of the S.D.	.82	-												
3. Black enrollment	.00	-.02	-											
White Socioeconomic Status														
4. Adult education	.08	.06	-.32	-										
5. White-collar employment	-.04	-.14	-.07	.84	-									
6. Family income	-.16	-.14	-.08	.61	.60	-								
Black Socioeconomic Status														
7. Adult education	.00	-.07	-.19	.47	.37	.27	-							
8. White-collar employment	-.03	-.14	-.11	.45	.56	.32	.68	-						
9. Family income	-.22	-.23	.04	.27	.28	.62	.53	.51	-					
Socioeconomic Residential Segregation														
10. Adult education	.22	.21	-.16	.30	.29	-.11	-.11	-.02	-.37	-				
11. White-collar employment	.24	.14	.06	.21	.30	-.04	-.17	.02	-.26	.78	-			
12. Family income	.27	.31	-.14	.50	.40	.00	.05	.06	-.30	.75	.60	-		
13. Racial residential segregation	.16	.28	-.14	.08	-.17	-.05	-.16	-.31	-.15	.13	.10	.16	-	
14. School racial segregation (R. S.)	.22	.40	.00	-.25	-.42	-.27	-.29	-.40	-.27	.10	.12	.08	.48	-
15. School racial concentration (R. C.)	.21	.32	.63	-.32	-.27	-.17	-.36	-.34	-.14	.03	.15	.03	.18	.52

Table 7. STANDARDIZED REGRESSION COEFFICIENTS FOR THE DEMOGRAPHIC VARIABLES (128 PLACES).

	Dependent Variable: Racial Segregation (R.S.)				
	Model				
Independent Variables:	1	2	3	4	5
2. Size of the school district	.28*		.48*	.28*	.48*
13. Racial residential segregation	.40*	.46*	.38*	.41*	.39*
1. Size of the place		.15**	-.24		-.24
3. Black enrollment				.06	.07
R^2	.3065	.2547	.3243	.3105	.3285

* Statistically significant at the .01 level
** Statistically significant at the .05 level

changed when included with the latter. If we assume that both of them affect R.S. for different reasons then we are in trouble trying to find out the unique effect of each one. But, as a matter of fact, most of the rationales that might explain their relationship with R.S. are common to both of them, which means that each one is a good indicator of the other and we should include only one in the model. Their coefficients give us a good reason to prefer the size of the school district, because of the magnitude and stability of its coefficient. But the theoretical and methodological reasons are more important. First, if we are dealing with an effort to desegregate the school district, its size is more important than the size of the place. Second, as was mentioned above, many school districts cover an area greater than their corresponding place. Therefore, the place size may not be an appropriate indicator of the factors affecting R.S. For all these reasons the school district size measure will be retained in the model.

The next step is to add two socioeconomic status measures

to the two above mentioned variables. The coefficients for various combinations including four and more variables are shown in Table 8.

Table 8. STANDARDIZED REGRESSION COEFFICIENTS FOR DEMOGRAPHIC AND S.E.S. VARIABLES (128 PLACES).

	Dependent Variable: Racial Segregation (R.S.)							
	Model							
Independent Variables:	1	2	3	4	5	6	7	8
2. Size of the school district	.25*	.29*	.25*	.25*	.24*	.28*	.25*	.28*
13. Racial residential segregation	.33*	.41*	.40*	.34*	.33*	.41*	.35*	.38*
5. Whites S.E.S. (occupation)	-.27*			-.27	-.28		-.29*	
8. Blacks S.E.S. (occupation)	-.11			-.06	-.08			-.14
4. Whites S.E.S. (education)		-.26*		-.01		-.25**		-.24*
7. Blacks S.E.S. (education)		-.08		-.08		-.07	-.11	
6. Whites S.E.S. (income)			-.19**		-.01	-.04		
9. Blacks S.E.S. (income)			-.04		-.06	-.02		
R^2	.4188	.4023	.3520	.4225	.4206	.4039	.4213	.4097

* Statistically significant at the .01 level
** Statistically significant at the .05 level

The collinearity among various indicators of socioeconomic status is high enough that we did not plan to include more than one indicator for each racial group in our final model. Although all the whites S.E.S. indicators are statistically significant we prefer the occupational variable (no. 5) because of its stability and magnitude. For the blacks S.E.S. where none of the coefficients is significant the situation is more problematical. We prefer to use as an indicator the percentage of blacks who completed high school only becaue its

coefficient is more stable than that of the occupational one.

Another group of variables that should be represented in the regression equation only by one of them is the three variables intended to measure socioeconomic residential segregation among whites. Again, it is a technical decision, and occupational residential segregation seems the best choice (see Table 9).

Table 9. STANDARDIZED REGRESSION COEFFICIENTS FOR DEMOGRAPHIC, S.E.S. AND RESIDENTIAL SEGREGATION VARIABLE (128 PLACES).

	Dependent Variable: Racial School Concentration (R.C.) Model			
Independent Variables:	1	2	3	4
2. Size of the school district	.25*	.23*	.23*	.22*
13. Racial residential segregation	.35*	.34*	.33*	.34*
5. White S.E.S. (occupation)	-.29*	-.33*	-.36*	-.33*
7. Blacks S.E.S. (education)	-.11	-.09	-.06	-.10
White Residential Segregation:				
10. Education		-.09		
11. Occupation			.15**	
12. Income				.08
R^2	.4213	.4281	.4393	.4259

* Statistically significant at the .01 level
** Statistically significant at the .05 level

Finally, we add the two variables (no. 16 and 17 in Table 10) that are intended to be indicators of the stability of the population in the place, and one measure of private school enrollment among whites (no. 18). These variables are included in the model mainly to prevent the possibility that in extreme cases high population mobility or large private school enrollment will wash out the expected effects of the community's S.E.S. From the various columns of Table 10 we learn that for our places four (variables no. 2, 13, 5 and 11) out of the five

main variables are affected very little by including the control variables in the equation. Although the coefficient of variable 7 is almost doubled when variable 17 is introduced into the equation, we shall choose the simplest regression equation, that in Column 1. for discussion.

Table 10. STANDARDIZED REGRESSION COEFFICIENTS FOR DEMOGRAPHIC AND S.E.S. VARIABLES (128 PLACES).

	Dependent Variable: Racial School Concentration (R.C.)						
	Model						
Independent Variables:	1	2	3	4	5	6	7
2. Size of the school district	.23*	.21*	.20*	.23*	.20*	.2[illegible]*	.22*
13. Racial residential segregation	.33*	.33*	.38*	.34*	.37*	.35*	.39*
5. Whites S.E.S. (occupation)	-.36*	-.38*	-.34*	-.36*	-.35*	-.39*	-.33*
7. Blacks S.E.S. (education)	-.06	-.08	-.13	-.06	-.13	-.07	-.12
11. Whites occupational residential segregation	.15**	.14**	.16**	.15**	.15**	.14**	.16**
16. Stability of white population		-.07			-.03	-.12	
17. Stability of black population			-.14**		-.13		-.15**
18. Whites enrollment in private schools				.04		.10	.06
R_2	.4393	.4429	.4520	.4405	.4526	.4489	.4552

* Statistically significant at the .01 level
** Statistically significant at the .05 level

Our hypotheses about the relationships between racial school segregation (R.S.) and sociodemographic variables are confirmed for four out of the five variables (Table 10, Column 1). As already mentioned a sixth variable, the proportional number of black students in the school district, does not show any association with R.S.

Although racial residential segregation is related positively to school R.S., it is surprising it is not a dominating factor in the model. The community's S.E.S. shows different results for the two racial groups. Whites' S.E.S is related negatively with R.S., which confirms our hypothesis. But blacks' S.E.S, although it shows a negative relationship with R.S. as predicted, is not statistically significant (about the problem of using inferential statistics when dealing with the whole population see Stinchcombe, 1968:23). Our last hypothesis about the relationship between S.E.S. residential segregation and R.S. is confirmed too (at the .05 level), but only when occupation is used as an indicator. This fact can hardly be justified theoretically and this positive relationship should be accepted with caution.

Does the fact that we are using only part of the population in our analysis (128 from 200) affect our findings? This question can not be fully answered. What we can do is compare our coefficients for 128 places with those computed from the data about 200, 188 and 140 places.

Comparing the coefficients shown in Table 11 for different number of places, we can say that for the three variables that are statistically significant at the .01 level there are not big differences in the coefficients and probably our conclusions apply to the whole population (200 places). The coefficient of blacks S.E.S. (variable 7) decreases as the number of places decreases. If we had the appropriate data for all the places, the coefficient might be higher and statistically significant. On the other hand, the reverse can be argued about occupational residential segregation.

Table 11. STANDARDIZED REGRESSION COEFFICIENTS FOR DIFFERENT NUMBER OF PLACES (200, 188, 140, and 128).

	Dependent Variables: Racial School Segregation (R.S.)							
	Number of Places							
	200	188	140	128	188	128	140	128
Independent Variables:	Model 1				Model 2		Model 3	
2. Size of the school district	.25*	.25*	.33*	.34*	.23*	.31*	.25*	.25*
13. Racial residential segregation							.32*	.35*
5. White S.E.S: (occupation)	-.27*	-.27*	-.31*	-.32*	-.30*	-.40*	-.28*	-.29*
7. Blacks S.E.S. (education)	-.20*	-.18*	-.18*	-.15**	-.16**	-.09	-.13**	.11
11. Whites occupational residential segregation					.06	.18**		
R_2	.2475	.2295	.3318	.3141	.2319	.3399	.4182	.4213

* Statistically significant at the .01 level
** Statistically significant at the .05 level

Social and Demographic Factors and Racial Concentration in Schools.

The standardized coefficients for the basic models and for several alternatives are presented in Table 12. In the following lines we discuss the relationships between the variables according to the findings shown by the preferred model (Model 7).

The coefficients of Model 7 indicate that black enrollment (percentage of blacks in the school district) is strongly associated with R.C. This strong relationship is not surprising and can be explained logically. If we have two school districts with different percentages of black students, when other conditions are the same, the district with the higher percentage has a higher probability of having schools with black majorities. The other variables are also related to R.C. and in the predicted direction, but the magnitude

Table 12. STANDARDIZED REGRESSION COEFFICIENTS FOR DEMOGRAPHIC, S.E.S. AND RESIDENTIAL SEGREGATION VARIABLES (128 PLACES).

	Dependent Variable: Racial School Concentration (R.C.)						
	Model						
Independent Variables:	1	2	3	4	5	6	7
1. Size of the place	-.12						
2. Size of the school district	.37*	.26*	.26*	.25*	.24*	.25*	.23*
3. Black enrollment	.68*	.68*	.62*	.65*	.68*	.64*	.63*
13. Racial residential segregation	.19*	.20*	.17*	.14**	.19*	.15*	.14*
4. Whites S.E.S. (education)			-.07				
5. Whites S.E.S. (occupation)				-.10		-.11**	-.15**
6. Whites S.E.S. (income)					-.03		
7. Blacks S.E.S. (education)			-.17*			-.16*	-.14**
8. Blacks S.E.S. (occupation)				-.13**			
9. Blacks S.E.S. (income)					-.07		
11. Whites residential segregation (occupation)							.09
R^2	.5619	.5570	.5978	.5943	.5653	.6047	.6109

* Statistically significant at the .01 level
** Statistically significant at the .05 level

of their coefficients is relatively small. The size of the school district and the racial residential segregation are related positively to R.C., while the S.E.S. of the two racial groups is related negatively to the dependent variable. The coefficient of the S.E.S. residential segregation is small and not statistically significant at the .05 level.

The most serious shortcoming of the measure used (R.C.) in this discussion is that school districts with more than 50 percent blacks must have in each school the same percentage of blacks in order to get a score of zero and any change of more than 1 percent will

increase this score. This over-sensitivity might exaggerate the importance of the variable measuring the percentage of blacks in the school district. In order to check this possibility, we re-computed the coefficients, using only the 109 districts with less than 50 percent blacks. The comparison between these coefficients and the original ones shows a slight decrease in the relationships between black enrollment and R.C. (from .63 to .54), but the coefficient is still the highest (see Table 13, Model 4).

As was done in the previous part, here again we present in Table 13 the different coefficients for the different number of places. There are some differences that could be mentioned. First, in Models 1 and 2, the coefficient of variable no. 2 increases as N decreases. The same is true in Model 2 for variable no. 11 when we compare its coefficients for N=188 and N=128. In this model there are also some changes in variables 5 and 7. But since in our analysis, we are seeking broad patterns of relationship and are not dealing with small differences betweeen the coefficients, these differences should not lead us to change our conclusions.

Racial Concentration, Racial Segregation and Sociodemographic Factors - Comparisons and Conclusions.

Several conclusions can be drawn from our findings. First of all, it is important how we measure racial school segregation. The dependent variable, when measured in different ways, shows different relationships with the independent variables. In our study this is demonstrated clearly by the variable, black enrollment. When school segregation is measured by the index of dissimilarity it is not related at all to the percentage of black enrollment.

Table 13. STANDARDIZED REGRESSION COEFFICIENTS FOR DIFFERENT NUMBER OF PLACES (200, 188, 140, 129 AND 109).

	Dependent Variable: Racial School Concentration (R.C.)									
	Number of Places									
	200	188	140	128	188	128	140	128	128	109
Independent Variables:	Model 1				Model 2		Model 3		Model 4	
2. Size of the school district	.19*	.19*	.28*	.29*	.19*	.27*	.25*	.25*	.23*	.26*
3. Black enrollment	.58*	.59*	.61*	.61*	.59*	.61*	.63*	.64*	.63*	.54*
13. Racial residential segregation							.12*	.15*	.14*	.16*
5. White S.E.S. (occupation)	-.12**	-.11**	-.14*	-.12**	-.11**	-.17*	-.13*	-.11**	-.15**	-.18*
7. Black S.E.S. (education)	-.19*	-.21*	-.15*	-.18*	-.21*	-.15*	-.12*	-.16*	-.14**	-.11
11. White residential segregation (occupation)					.00	.10			.09	.08
R_2	.4900	.4947	.5712	.5848	.4947	.5932	.5838	.6047	.6109	.5541

* Statistically significant at the .01 level

** Statistically significant at the .05 level

When it is measured by the concentration of blacks in majority black schools, the relationship is very strong.

Racial residential segregation is also associated differently with school segregation according to the different definitions. As indicated only from the magnitudes of the coefficients, without testing it statistically, the relationship between residential segregation and school segregation is much stronger than between the former and school concentration. On the other hand, the third demographic factor - the size of the school district, has the same relationships with the two alternative measures of the dependent variable.

The relationship between whites and blacks socioeconomic characteristics and school segregation is also affected by the method we use to measure the latter. For the whites no matter which method is used, the findings reveal a significant negative relationship, and the difference is only in the coefficients' magnitudes. For the blacks only the relationships with school concentration is confirmed statistically.

The hypothesis that predicts positive relationship between school segregation and socioeconomic residential segregation was confirmed by the findings only when related to school segregation. However, even this association seems somehow doubtful. First of all, as already has been mentioned before, this relationship is statistically significant only when occupation is used as an indicator of the variable. The rationale for using only one indicator in the final model (beside the multicollinearity problem) is based on the assumption that all the three indicators are measuring the

same concept or factor. Once this assumption cannot be confirmed our hypothesis loses much of its explanatory power. Because unless we know exactly who are the groups that favor school desegregation we cannot explain why school segregation is affected by different rates of residential segregation between occupational but not between educational groups. Second, even the coefficient that is statistically significant for the 128 places is not significant anymore when more places are added (see Table 11, Model 2).

Nevertheless it might be that all the above mentioned shortcomings are due mainly to methodological difficulties and before omitting this hypothesis from further research it deserves a more intensive investigation. The hypothesis about the relationship between school segregation and socioeconomic residential segregation is based on the assumption that the less the socioeconomic residential segregation, the more the personal relations between different social groups. This assumption might be true only when the basic unit used in the measurement of segregation is small enough (like the census block). Unfortunately, because of the kind of data available, we had to use census tracts as our basic unit of measurement. The problem with such a unit is that because of its size it may contain different socioeconomic groups that have not any personal communication between each other.

In the original design of this study we thought that for our purpose it would be desirable to deal with communities that were small but that were large enough for calculating segregation measures, both school and residential. Therefore we included in the study places with at least 25,000 inhabitants. When computing the indices, we

found that many places with less than 50,000 inhabitants had small school districts and very few census tracts. Indices for these places might be significantly affected by random effects and small changes in census tract boundaries. A decision to change the definition of the population by using 50,000 inhabitants as a lower limit would have another benefit for the study. The original population was 230 places. Because of all kinds of missing data our main analysis is based on 128 places. Of the 102 omitted places, 86 have less than 50,000 inhabitants. To put it another way, of 126 places with more than 50,000 inhabitants only 16 had to be omitted from the main analysis. This means that the 128 places that we dealt with in our main analysis are quite a good representation of all the places with more than 50,000 and less than 200,000 inhabitants, and a bad one of the original population.

REFERENCES

Blalock, Hubert M.
1967 Toward a Theory of Minority-Groups Relations. New York: John Wiley & Sons.

Coleman, James S. et al.
1966 Equality of Educational Opportunity. Washington, D.C.: U. S. Office of Education.

Crain, Robert L.
1968 The Politics of School Desegregation. Chicago: Aldine.

Dye, Thomas R.
1968 "Urban school segregation." Urban Affairs Quarterly 4: 141-165.

Edwards, Bentley T. and Frederick M. Wirt (eds.)
1967 School Desegregation in the North. San Francisco: Chandler.

Farley, Reynolds and Alma F. Taeuber.
1974 "Racial segregation in the public schools." American Journal of Sociology 79:888-905.

Gordon, R.A.
1968 "Issues in multiple regression." American Journal of Sociology 73:592-616.

Hill, Roscoe and Malcolm Feeley (eds.)
1968 Affirmative School Integration. Beverly Hills: Sage Publications.

Hyman, Herbert H.
1969 "Social psychology and race relations." Pp. 3-48 in Irwin Katz and Patricia Gurin (eds.), Race and the Social Sciences. New York: Basic Books.

Lipset, Seymour M. et al.
1954 "The psychology of voting: An analysis of political behavior." Pp. 1140-1143 in Gardner Lindzey (ed.), Handbook of Social Psychology. Vol. 2. Cambridge, Mass.: Addison-Wesley.

Riecken, Henry and George Homans.
1954 "Psychological aspects of social structure." Pp. 801-805 in Lindzey op. cit. Vol. 2.

Rogers, David and Bert Swanson.
1965 "White citizen response to the same integration plan: Comparisons of local school districts in a northern city." Sociological Inquiry 35:107-122.

Rose, Arnold M.
1968 "School desegregation: A sociologists' view." Pp. 125-140 in Hill and Feeley op. cit.

Stinchcombe, Arthur L.
1968 Constructing Social Theories. New York: Harcourt, Brace & World.

U.S. Commission on Civil Rights.
1967 Racial Isolation in the Public Schools. Washington, D.C.: U. S. Government Printing Office.

U. S. Department of Health, Education, and Welfare. Office for Civil Rights.
1972 Directory of Public Elementary and Secondary Schools in Selected Districts, Enrollment and Staff by Racial/Ethnic Groups, Fall, 1970.